We Claim:

1. An apparatus for depositing particulate matter into a supply of fibrous material moving in a machine direction comprising:

a feed tray having an outlet positioned above the supply of fibrous material;

a motor coupled to the feed tray for vibrating the feed tray;

wherein when the motor vibrates the feed tray particulate matter in the feed tray is deposited onto the supply of fibrous material; and

wherein when the motor does not vibrate the feed tray substantially no particulate matter in the feed tray is deposited onto the supply of fibrous material.

2. The apparatus of claim 1, wherein the particulate matter comprises superabsorbent particles.

3. The apparatus of claim 1, wherein the supply of fibrous material comprises an opened tow of cellulose acetate.

4. The apparatus of claim 1, wherein the apparatus is adapted to deposit particulate matter into the supply of fibrous material to form a composite having about 30% by weight of particulate matter and about 70% by weight of fibrous material to about 95% by weight of particulate matter and about 5% by weight of fibrous material.

5. The apparatus of claim 1, wherein the apparatus is adapted to deposit particulate matter into the supply of fibrous material to form a composite having about 60% by weight of particulate matter and about 40% by weight of fibrous material to about 90% by weight of particulate matter and about 10% by weight of fibrous material.

6. The apparatus of claim 1, wherein the apparatus is adapted to deposit particulate matter into the supply of fibrous material to form a composite having about 75% by weight of particulate matter and about 25% by weight of fibrous material to about 85% by weight of particulate matter and about 15% by weight of fibrous material.

7. The apparatus of claim 1, wherein the particulate matter is deposited at a flow rate of about 10,000 g/min to about 20,000 g/min.

8. The apparatus of claim 1, wherein the particulate matter is deposited at a flow rate of about 12,500 g/min to about 17,500 g/min.

9. The apparatus of claim 1, wherein the particulate matter is deposited at a flow rate of about 15,000 g/min.

10. The apparatus of claim 1, wherein the motor is a pneumatic vibrator, a electromagnetic vibrator, a magnetic vibrator, and electric vibrator, or a hydraulic vibrator.

11. The apparatus of claim 1, wherein the motor vibrates at any frequency up to about 600 Hz.

12. The apparatus of claim 1, wherein the motor vibrates at any frequency up to about 520 Hz.

13. The apparatus of claim 1, wherein the motor vibrates at any frequency up to about 430 Hz.

14 The apparatus of claim 1, wherein the motor vibrates at a pitch of about 0.01 inches to about 0.125 inches.

15. The apparatus of claim 1, wherein the motor vibrates at a pitch of about 0.02 inches to about 0.10 inches.

16. The apparatus of claim 1, wherein the motor vibrates at a pitch of about 0.04 inches to about 0.08 inches.

17. The apparatus of claim 1, further comprising a control system that increases or decreases the amount of particulate matter deposited into the fibrous material by increasing or decreasing, respectively, the motor frequency and/or the motor pitch.

18. An apparatus for depositing particulate matter into a supply of fibrous material moving in a machine direction comprising:

a feed tray comprising a pan having an outlet positioned above the supply of fibrous material and a gate disposed above and spaced apart from the pan, located proximal to the outlet and dividing the pan into upstream and downstream portions;

a motor coupled to the feed tray for vibrating the feed tray;

wherein when the motor vibrates the feed tray particulate matter in the feed tray flows beneath the gate and is deposited onto the supply of fibrous material; and

wherein when the motor does not vibrate the feed tray particulate matter in the feed tray is substantially contained in the upstream portion of the pan and substantially no particulate matter is deposited onto the supply of fibrous material.

19. The apparatus of claim 18, wherein the upstream portion of the pan is covered.

20. The apparatus of claim 18, wherein the gate is adjustable to increase or decrease the distance by which the gate is spaced apart from the pan.

21. The apparatus of claim 18, wherein the gate is spaced apart from the pan by about 0.10 inches to about 1.00 inches.

22. The apparatus of claim 18, wherein the gate is spaced apart from the pan by about 0.125 inches to about 0.75 inches.

23. The apparatus of claim 18, wherein the gate is spaced apart from the pan by about 0.25 inches to about 0.50 inches.

24. The apparatus of claim 18, further comprising one or more guides for controlling the flow path of the particulate matter.

25. The apparatus of claim 18, wherein the pan is contoured to control the flow path of the particulate matter.

26. The apparatus of claim 18, further comprising two or more side plates, each side plate being disposed on a side of the feed tray and approximately parallel with the machine direction to inhibit the passage or air in a direction perpendicular to the machine direction.

27. The apparatus of claim 18, further comprising a vacuum draw roll for conveying the supply of fibrous material positioned below the outlet.

28. The apparatus of claim 27, wherein the outlet is located about 0.25 inches to about 4.00 inches from the vacuum draw roll.

29. The apparatus of claim 27, wherein the outlet is located about 0.375 inches to about 1.00 inch from the vacuum draw roll.

30. The apparatus of claim 27, wherein the outlet is located about 0.50 inches from the vacuum draw roll.

31. The apparatus of claim 18, wherein the active width of the feed tray is about 2 inches to about 12 inches.

31. The apparatus of claim 18, wherein the active width of the feed tray is about 3 inches to about 10 inches.

31. The apparatus of claim 18, wherein the active width of the feed tray is about 3.75 inches to about 4.00 inches.

32. A method for depositing particulate matter into a supply of fibrous material moving in a machine direction comprising:

providing a feed tray having an outlet positioned above the supply of fibrous material;

disposing particulate matter into the feed tray;

arranging the feed tray such that the particulate matter does not flow out of the feed tray when the feed tray is not moving; and

vibrating the feed tray to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material.

33. The method of claim 32, further comprising stopping vibrating the motor to cause the particulate matter to stop flowing out of the feed tray.

34. The method of claim 32, wherein the particulate matter comprises superabsorbent particles.

35. The method of claim 32, wherein the supply of fibrous material comprises an opened tow of cellulose acetate.

36. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material to form a composite having about 30% by weight of particulate matter and about 70% by weight of fibrous material to about 95% by weight of particulate matter and about 5% by weight of fibrous material.

37. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material to form a composite having about 60% by weight of particulate matter and about 40% by weight of fibrous material to about 90% by weight of particulate matter and about 10% by weight of fibrous material.

38. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material to form a composite having about 75% by weight of particulate matter and about 25% by weight of fibrous material to about 85% by weight of particulate matter and about 15% by weight of fibrous material.

39. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material at a flow rate of about 10,000 g/min to about 20,000 g/min.

40. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material at a flow rate of about 12,500 g/min to about 17,500 g/min.

41. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material at a flow rate of about 15,000 g/min.

42. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray at any frequency up to about 600 Hz to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material.

43. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray at any frequency up to about 520 Hz to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material.

44. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray at any frequency up to about 430 Hz to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material.

45. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray at a pitch of about 0.01 inches to about 0.125 inches to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material.

46. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray at a pitch of about 0.02 inches to about 0.10 inches to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material.

47. The method of claim 32, wherein the step of vibrating comprises vibrating the feed tray at a pitch of about 0.04 inches to about 0.08 inches to cause the particulate matter to flow out of the feed tray and onto the supply of fibrous material.

48. The method of claim 32, wherein said step of vibrating further comprises increasing or decreasing the vibration speed to increase or decrease, respectively, the amount of particulate matter that flows out of the feed tray and onto the supply of fibrous material.

49. The method of claim 32, wherein said step of vibrating further comprises increasing or decreasing the vibration pitch to increase or decrease, respectively, the

amount of particulate matter that flows out of the feed tray and onto the supply of fibrous material.

50. The method of claim 32, further comprising the step of using a loss-in-weight control system to meter the amount of particulate matter that flows out of the feed tray.

51. An absorbent article comprising:

a topsheet;

a backsheet; and

an absorbent core disposed between the topsheet and the backsheet comprising fibrous material and particulate matter;

wherein the particulate matter is distributed in the fibrous material using the apparatus of claim 1.

52. The absorbent article of claim 51, wherein the fibrous material comprises an opened tow of cellulose acetate and the particulate matter comprises superabsorbent particles.

53. An absorbent article comprising:

a topsheet;

a backsheet; and

an absorbent core disposed between the topsheet and the backsheet comprising fibrous material and particulate matter;

wherein the particulate matter is distributed in the fibrous material using the apparatus of claim 18.

54. The absorbent article of claim 53, wherein the fibrous material comprises an opened tow of cellulose acetate and the particulate matter comprises superabsorbent particles.

55. An absorbent article comprising:

a topsheet;

a backsheet; and

an absorbent core disposed between the topsheet and the backsheet comprising fibrous material and particulate matter;

wherein the particulate matter is distributed in the fibrous material using the method of claim 32.

56. The absorbent article of claim 55, wherein the fibrous material comprises an opened tow of cellulose acetate and the particulate matter comprises superabsorbent particles.